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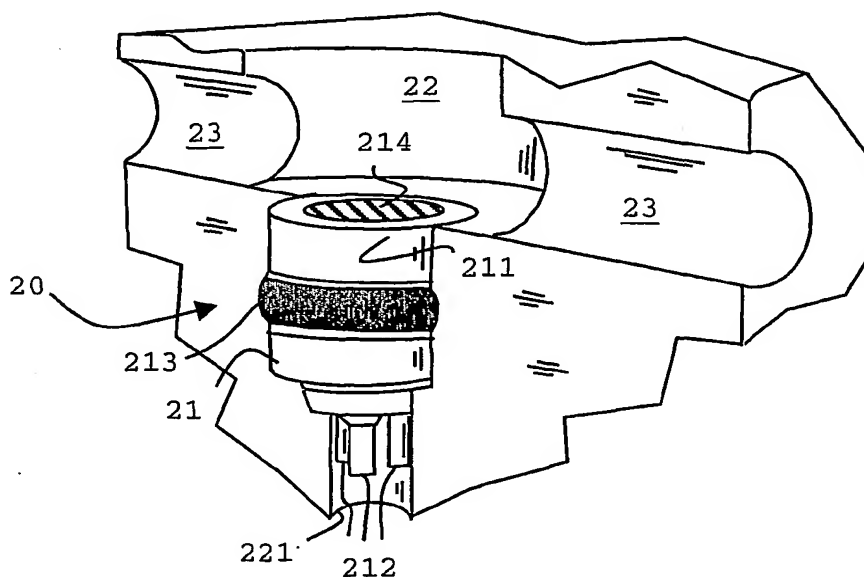
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(54) Title: APPARATUS AND METHOD FOR MEASURING CONCENTRATIONS OF SCALE-FORMING IONS



(57) Abstract: This invention relates to methods and apparatus for determination of ion concentrations, particularly in downhole water from hydrocarbon wells, aquifers etc. It is useful in a wide range of applications, including predicting the formation of scale and fingerprinting waters from different sources. More particularly, the invention relates to the use of ligands whose electronic configuration is altered by the binding of the scaling ions within a water sample. These alterations are detected, for example by electrochemical means, and are indicative of the concentration of scaling ions in the sample.

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